

**Agenda Item: Item 3**  
**Meeting Date: Monday August 14<sup>th</sup>**

## Science Program Update

---

### **Science Program Staff**

The Science Program is supported by 13 staff members. The program is in process of filling two positions, an Environmental Scientist and Research Writer. Information on the staff is included in your binder.

### **Science Program Recent Accomplishments**

The Science Program has continued to support and participate in an intensive effort to improve understanding of the Bay-Delta system, as well as improve the application of science throughout the CALFED Program. The activities identified in the Accomplishments section below are part of a long-term strategy to meet the program's objectives while maintaining the ability to respond to unforeseen critical issues facing the CALFED Program. For example, continued investment to increase our understanding of the Bay-Delta system through research grants and CALFED Science Fellows not only yields information to inform pressing questions on Delta ecosystem sustainability relative to current water operations practices, but also provides the foundation that will support sound resource management decisions over the long-term.

**Funded \$10 million in first Science Proposal Solicitation Package (PSP).** In 2004 the Science Program implemented its first broad call for research proposals covering cross program priority needs. Thirteen proposals were selected and approved or recommended for funding by the Authority in August 2005.

**Funded new class of CALFED Science Fellows.** The Science Program has completed a second round of granting funds to postdoctoral and graduate researchers through the innovative CALFED Science Fellows Program—a collaborative program between CALFED Science Program and California Sea Grant College Program. The Fellows program brings together community mentors with junior scientists and targets agency research priorities and data analysis gaps. Approximately \$2 million was awarded to eight Fellows in August 2005.

**Interagency Ecological Program's (IEP) Pelagic Organism Decline (POD)**

**Investigations:** Responding to the recent decline of pelagic fish species in the Bay-Delta, the Science Program co-sponsored an independent external review of the Interagency Ecological Program's workplan to address the POD issues. The panel's report is based on the IEP's Pelagic Organism Decline Investigation 2005 results and draft 2006 work plan presented at a public workshop in November 2005. In January the IEP Directors approved the final 2006 work plan, which included revisions based on the review panel report. The Science Program considered the panel's recommendations in identifying priorities for its 2006 focused research solicitation and Science Fellows program. IEP POD group has developed a response to the review recommendations. For more information see Science Program website at:

[http://science.calwater.ca.gov/workshop/workshop\\_pod.shtml](http://science.calwater.ca.gov/workshop/workshop_pod.shtml)

**Operations Criteria and Plan (OCAP) Biological Opinion:** At the National Marine Fisheries Service (NMFS) request, the Science Program organized an independent review of the scientific information used to support the 2004 Biological Opinion regarding the coordinated OCAP for the Central Valley Project and State Water Project. A public workshop was held in October 2005. The review panel presented its final report at public workshop January 30, 2006. The report including the response from NMFS is available on the Science Program website at [http://science.calwater.ca.gov/workshop/workshop\\_ocap.shtml](http://science.calwater.ca.gov/workshop/workshop_ocap.shtml).

**Environmental Water Account (EWA) Workshop:** EWA agency biologists and Science Program held a public workshop in December 2005 to review the 2005 EWA water acquisitions and allocations, focusing on the issues of EWA export effects on delta smelt and other sensitive fish populations and addressing how this information would affect EWA operations in 2006. Although this event was not a full-fledged annual program review, four members from the EWA Review Panel participated in the technical workshop and their review comments are available on the Science Program website at <http://science.calwater.ca.gov/workshop/ewa.shtml>.

**CALSIM II:** The CALFED Science Program and the California Water and Environmental Modeling Forum (CWEMF), in collaboration with the US Bureau of Reclamation (USBR), California Department of Water Resources (DWR), California Regional Water Quality Control Board, Central Valley Region (RWQCB-CVR), and the US Environmental Protection Agency (Water Quality Program), have sponsored and organized a technical review to provide an independent analysis and recommendations about the strengths and weaknesses of the new simulations of the San Joaquin River Valley representations in the CALSIM II model. The review effort was comprised of three public workshops, with final review panel report released in January 2006 ([http://science.calwater.ca.gov/workshop/calsim\\_05.shtml](http://science.calwater.ca.gov/workshop/calsim_05.shtml)).

**Delta Science Panel:** In response to request from the California Legislature, the Science Program convened a technical panel to consider the current scientific understanding of the Sacramento-San Joaquin River Delta and to prepare a report that will be used to help develop a long-term Delta vision. The panel has reviewed, summarized and synthesized information developed by the CALFED Program's science boards, other pertinent literature, and input from other Delta science experts to develop the comprehensive report. The report, The Role of Science in the Delta Visioning Process, released in June 2006, is expected to inform upcoming Delta vision discussions among stakeholders and policy makers. The report is available on the Science Program website: [http://science.calwater.ca.gov/pdf/CSP\\_delta\\_vision\\_process\\_Twiss\\_062306..](http://science.calwater.ca.gov/pdf/CSP_delta_vision_process_Twiss_062306..)

### **Science Program Year 7 Priorities**

The Science Program Draft Year 7 Program Plan identifies the CALFED Program activities that are scheduled to be completed during State Fiscal Year (FY) 2006-2007 and Federal FY 2007 (July 1, 2006 through (?) September 30, 2007) to address Science Program goals and to meet ROD objectives and priorities identified in the CALFED Bay-Delta Program 10 Year Action Plan.

- Providing support for End of Stage I decisions through programmatic reviews such as Environmental Water Account (EWA) Review, Pelagic Organisms Decline (POD) Studies Review Panel, and supporting assessments of water quality and ecosystem restoration programs.
- Reconstituting and providing staff and resource support for a CALFED-wide Independent Science Board.
- Continuing performance measures and indicators development in collaboration with implementing agency representatives.
- Increasing efforts on information synthesis and communication of scientific understanding to the CALFED community through such efforts as the 2006 CALFED Science Conference, Delta Science Panel report, and San Francisco Estuary and Watershed Science on-line journal.
- Continuing to invest in priority scientific information needs through program's Focused Proposal Solicitation Package (PSP) and providing support to increase data analyses of existing monitoring data sets through CALFED Science Fellows program.
- Supporting ongoing scientific research, projects, and programs across the CALFED Bay-Delta Program by identifying and providing technical expert advisors.

### **Lead Scientist Recruitment**

The Science Program is currently searching for an interim Lead Scientist. The program is interested in obtaining input from the ISB on identifying candidates for the position as well as the Lead Scientist selection process. . This topic will be discussed in detail under Agenda Item 3 on Tuesday August 15<sup>th</sup>.

### **2006 EWA Review**

The Science Program, in collaboration with implementing agency scientists, is organizing a comprehensive review of the Environmental Water Account. This event will be held in Sacramento November 28-30, 2006, and will focus on the contribution of the EWA and other environmental water programs to protecting and restoring delta smelt, Chinook salmon, and steelhead in the San Francisco Estuary and watershed, developing plans for science needs and water allocation priorities for EWA Year 7, and identifying science components and water allocation strategies for a possible long-term EWA program. For more information on EWA and the upcoming review, see the EWA Workshops webpage: <http://science.calwater.ca.gov/workshop/ewa.shtml>.

### **CALFED Science Conference 2006**

The 4<sup>th</sup> Biennial CALFED Science Conference will be held October 23-25, 2006 at the Sacramento Convention Center. The conference is centered around the theme "Making Sense of Complexity: Science in a Changing Environment" and will including presentations addressing high priority issues such as Pelagic Organism Decline, Mercury, Invasive Species, Climate Change, and Wetland Restoration. In addition to three days of oral presentations, the conference will also feature over 150 poster presentations. On-line registration begins August 15, 2006. Additional information can be found at the Science Conference homepage:

[http://science.calwater.ca.gov/conferences/sciconf\\_index.shtml](http://science.calwater.ca.gov/conferences/sciconf_index.shtml)

### **2006 Science Program Focused Proposal Solicitation Package**

The 2006 Focused Proposal Solicitation Package (PSP) is currently open. The program is soliciting research projects on the following topics:

- Environmental Water
- Aquatic invasive (Exotic) species
- Trends and patterns of population and system response to a changing environment
- Habitat availability and response to change

Proposals will be accepted through August 31, 2006. About \$6 million is available in funding. Additional information can be found at

[http://science.calwater.ca.gov/psp/psp\\_package\\_2006.shtml](http://science.calwater.ca.gov/psp/psp_package_2006.shtml)

### **CALFED Science Fellows Program**

The 2006 Request for Applications is open for the CALFED Science Fellows Program. The program is accepting the submission of research proposals through August 31, 2006. Proposals should address topics identified below:

- Priority topic areas:
  - Environmental Water
  - Aquatic invasive (Exotic) species
  - Trends and patterns of population and system response to a changing environment
  - Habitat availability and response to change
- CALFED Implementing Agency needs:
  - Environmental Water Account (EWA)
  - Drinking water quality
  - Pelagic Organism Decline (POD)

### **State of Science for the Bay-Delta System**

A priority task for the Science Program is to develop a State of Science report that will provide a broad interdisciplinary context and describe relevant scientific information for the Bay-Delta system. The purpose of the report is to inform decision making and future Delta management under changing conditions. Science Program staff has developed an outline and approach to completing a final report by October 2007. The report approach will be discussed in detail as Agenda Item 1 on Tuesday August 15<sup>th</sup>.

#### **Program Contact:**

Ron Ott  
Deputy Director for Science  
CALFED Bay-Delta Program

Phone: (916) 445-2168